THE PORT OF LOS ANGELES
425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

October 8, 2014

Omoruyi Patrick
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Omar Shaleb
US Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Dear Messrs Patrick and Shaleb:

SUBJECT: RESULTS OF ADDITIONAL SHALLOW SOIL SAMPLING AT THE SOUTHWEST MARINE TERMINAL ISLAND FACILITY SITE, 985 SEASIDE AVENUE (BERTH 240), PORT OF LOS ANGELES, REMEDIAL ACTION ORDER NO. HAS-RAO 08/09-056

Enclosed please find a letter from our environmental consultant, The Source Group, Inc. (SGI), which summarizes the results of the additional shallow soil sampling conducted at the former Southwest Marine facility in October 2014. This additional sampling effort was conducted as requested by the United States Environmental Protection Agency in their November 19, 2013, conditional approval of the Removal Action Workplan (SGI, May 2013).

If you require any additional information or have any questions regarding this matter, please contact Rita Brenner at (310) 732-3127 or via email at rbrenner@portla.org.

Sincerely,

CHRISTOPHER CANNON
Director of Environmental Management

CC:CJF:RB:mlx
ADP No.: 940228-625

Enclosure

cc: Sandor Halvax, BAE Systems (w/enclosure)
Ken Mattfeld, City of Los Angeles Harbor Department, City Attorney (w/enclosure)
Douglas Bautista, DTSC Cypress (w/o enclosure)

SGI environmental THE SOURCE GROUP, INC.

October 3, 2014

Mr. Omoruyi Patrick
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630-4732

Mr. Omar Shaleb
US Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Subject: Results of Additional Soil Sampling and Update on Upcoming Soil Removal at Former Southwest Marine Facility, Port of Los Angeles

Dear Mr. Patrick,

On November 19, 2013, the US Environmental Protection Agency (USEPA) conditionally approved a proposed removal program of soil containing polychlorinated biphenyls (PCBs) at the former Southwest Marine facility (Berth 240), located at 985 Seaside Avenue, Terminal Island, California (the Site). The remediation of the Site soil requires the excavation of soil containing contaminants at concentrations above site-specific cleanup levels, and the proposed soil removal will include soil containing metals and petroleum hydrocarbons as well as PCBs above cleanup levels.

Soil Sampling

The USEPA approval letter referred to the proposed soil removal area identified in the May 10, 2013 Removal Action Workplan (RAW) prepared by The Source Group, Inc. (SGI) and approved by the Department of Toxic Substances Control (DTSC). The approval letter specified six locations where additional sampling would be required at the surface and from a depth of 2 feet below grade. The locations were specified on the initial grid-cell map as cells A8, B8, A24, B24, E4, and F4. Two sampling points (E4 and F4) were located in Parcel 3, where PCBs had been previously identified in relatively wide areas, and four sampling points were identified in the western and southern parts of the site with only localized previous PCB findings. These locations are illustrated on Figures 1A and 1B and were marked in the field by a licensed surveyor in September 2014, and sampled on September 19, 2014. Twelve soil

samples were submitted to state-certified American Analytics Laboratory for analysis of PCB concentrations by method 8082A/5430C. The results of the analyses are listed on Table 1.

The results indicate that the formerly labeled cell locations E4 and F4, located in the northern part of Parcel 3 and sampled as samples P3E-5 and P3F-5, contained PCB concentrations above the Site cleanup level of 0.55 ppm in the surface sample (11.1 ppm and 0.87 ppm, respectively). The deeper samples at both locations contained no PCBs above the cleanup level. The eight soil samples from the other four locations contained no PCB concentrations above the cleanup goal, confirming that the PCB-containing soil in the south western part of the interim remediation area are localized and delineated.

On September 18, 2014, SGI also collected soil samples to verify previous areas of reported metal concentrations above cleanup levels. This testing was done to confirm whether soil removal would be required in those areas.

- Four locations were resampled for arsenic (**As**) concentrations (P2-6; P2-9 [shallow and deep]; P3-18; P2-33) that were previously reported at a detection limit of 20 ppm, which is higher than the cleanup level, and therefore resampling was required to verify if **As** concentrations are above the cleanup level of 12 ppm.
- Two locations for lead (Pb) (DP-20 and MW-11) where previous deep samples (6 ft and 10 ft, respectively) were reported to contain **Pb** at concentrations only slightly above the cleanup level of 80 ppm (83 ppm and 86 ppm, respectively).
- One location (P3-22) was re-sampled at a depth of 7.5 ft to verify a previous **Pb** reported concentration of 96 ppm and to further define the **As** concentration previously reported at <20 ppm.

The results of the re-sampling and analyses for metals are presented in Table 2. Among the seven locations sampled, only one location (P2-9) was reported to contain **As** and **Pb** at concentrations above the cleanup levels. That location has been included as an area scheduled for excavation to an initial depth of 1.5 feet.

Proposed Upcoming Soil Removal (Removal Action Workplan Implementation)

Following the 2013 USEPA approval of the above soil sampling results, SGI is planning to implement the PCB soil removal at the Site. The proposed 2014 excavation, referred to as Phase I, is essentially similar to the work scope proposed in the 2013 RAW , with the exception of the northern margin extending approximately 50 feet farther north in Parcel 3, and an area of 50 x 150 feet in the northwestern part of Parcel 2 (Figure 1A).

The proposed 2014 excavation is essentially similar to the proposed 2013 RAW soil removal area (termed Phase 1) with the exception of the northern margin extending approximately 50 feet farther north in Parcel 3, and an area of 50 x 150 feet in the northwestern part of Parcel 2 (Figure 1A). Figures 1 and 2 show the areas proposed for excavation of PCB-containing soil. As the removal and disposal of TSCA-regulated soil involves special procedures, SGI is proposing to conduct the Site soil removal in two phases, starting with the excavation and confirmation samples of areas of soil containing PCBs above the cleanup level, followed by excavation of soil containing metals or petroleum hydrocarbons outside of PCB areas.

As the proposed remedial area contains approximately twenty PCB-targeted excavations, SGI proposes to conduct the excavations successively, and collect lateral and vertical confirmation samples for analysis as described in the May 2013 RAW . SGI proposes to progressively submit the results of the confirmation analyses to USEPA to obtain concurrence with the completion of each excavation. SGI will then seek from the USEPA, on behalf of the City of Los Angeles Harbor Department, concurrence that the removal of PCB-containing soil is complete, and excavations of other areas containing metal or petroleum hydrocarbons will then be implemented under DTSC's oversight. This stepped approach will ensure that the sampling, handling, and disposal of TSCA-regulated soil are specifically conducted to the satisfaction of the USEPA. Excavations will be backfilled upon concurrence by USEPA that the excavation is complete.

Schedule

As previously noted by email on September 30, 2014, Phase I soil excavation is tentatively scheduled to start on October 13, 2014 (pending concurrence by USEPA and DTSC), and the excavation and confirmation samples in the areas containing PCBs above cleanup levels are expected to take approximately 3-4 weeks.

If you have any questions, please call Rita Brenner at the Harbor Department at (310) 732-3127 or Paul Parmentier at (562) 597-1055.

Sincerely,

Paul Parmentier, P G 3915

cc: Rita Brenner, LA Harbor Department
Shirin Sadrpour, LA Harbor Department

Attachments:

- Figures 1A and 1B: PCB Concentrations in September 2014 Samples and Proposed PCB Soil Excavations, Southern and Northern Areas
- Figures 2A and 2B: Arsenic and Lead Concentrations in September 2014 Shallow Samples and Proposed Metal and TPH Shallow Excavations, Southern and Northern Areas
- Figures 3A and 3B: Arsenic and Lead Concentrations in September 2014 Deep Samples and Proposed Metal and TPH Excavations, Southern and Northern Areas
- Table 1: Results of September 2014 Additional PCB Analyses in Soil
- Table 2: Results of Additional Arsenic and Lead Analyses in Soil
- Laboratory Report

P3-F-5
0.87 @ Surface

P3-F-5
0.471 @ 2 ft

P3-E-5
11.1 @ Surface

P3-E-5
0.34 @ 2 ft

P3-A-9
0.149 @ Surface

P3-A-9
0.36 @ 2 ft

P3-B-9
0.094 @ Surface

P3-B-9
0.094 @ 2 ft

P2-A-25
0.079 @ Surface

P2-A-25
0.091 @ 2 ft

P2-B-25
ND @ Surface

P2-B-25
ND @ 2ft

SEASIDE AVENUE

SEASIDE AVENUE

LEGEND

- PCB Concentrations ≥ 0.55 mg/kg
- Detected PCB Concentrations ND - 0.55 mg/kg
- PCB Concentrations Non Detected
- EPA-Requested PCB Sampling Concentrations ≥ 0.55 mg/kg (SGI, Sept. 2014)
- EPA-Requested PCB Sampling Concentrations Below 0.55 mg/kg or Non Detect (SGI, Sept. 2014)
- Planned Deep Soil Excavation for PCB Removal
- Proposed TSCA PCB Excavations (0-2 ft bgs)
- 2014 Phase I Area
- 2013 RAW Area

Notes:

mg/kg = Milligrams per Kilogram

ft bgs = Feet Below Ground Surface

TSCA = Toxic Substance Control Act

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

PCB CONCENTRATIONS IN SEPTEMBER 2014 SAMPLE AND PROPOSED PCB SOIL EXCAVATION (SOUTHERN AREA)

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/06/2014	P.WU	P. PARMENTIER

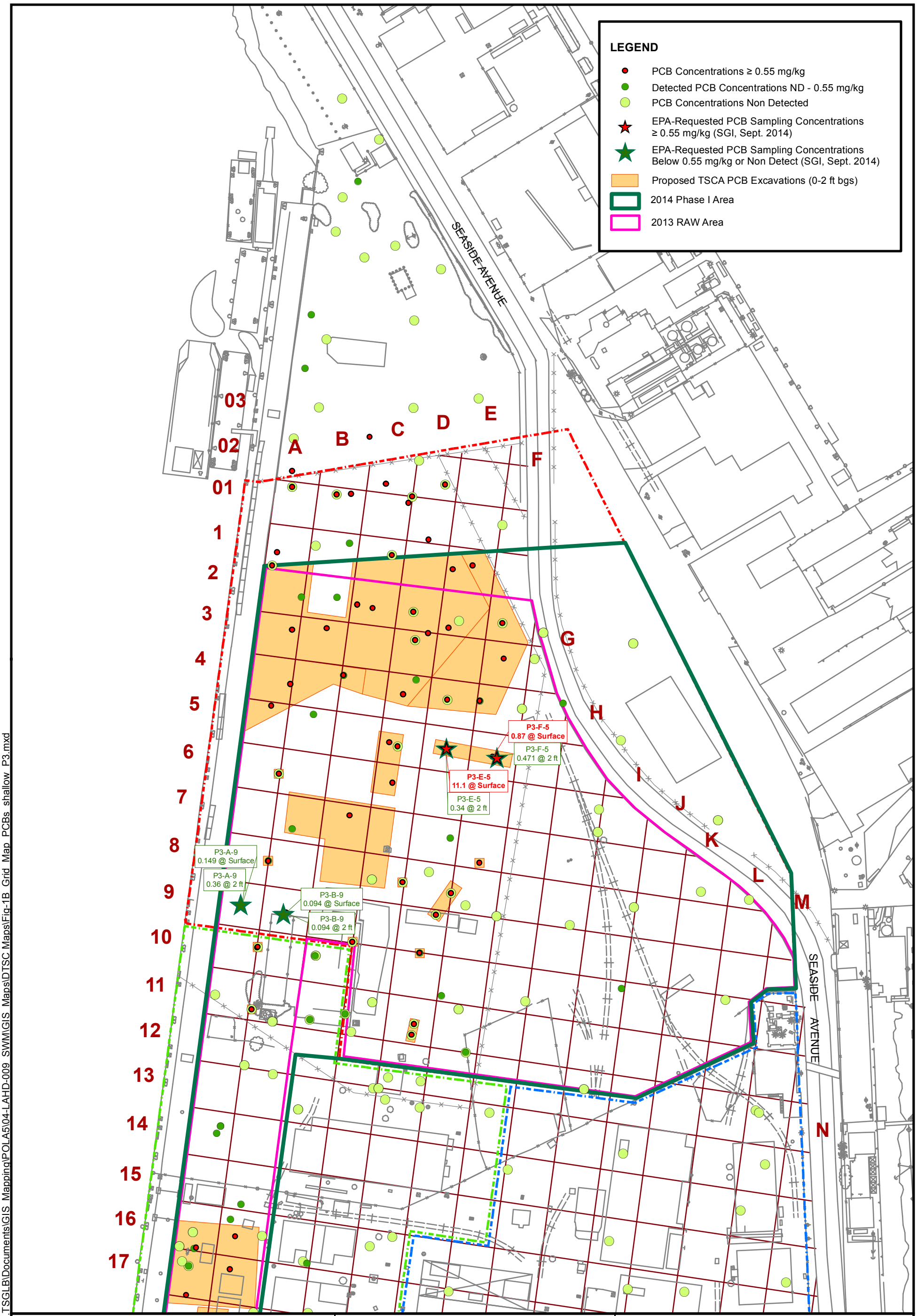
0 50 100 200 Feet

SGI environmental
THE SOURCE GROUP, INC.
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 579-1055

N

FIGURE 1A

Document Path: C:\Users\sgi.TSGLB\Documents\GIS Mapping\POLA5104-LAHD-009 SWMIGIS Maps\DTSC Maps\Fig-1A Grid Map PCBs shallow P1-2.mxd



Document Path: C:\Users\sgi.TSGLB\Documents\GIS Mapping\POLA5\04-LAHD-009 SWM\GIS Maps\DTSC Maps\Fig-1B Grid Map PCBs shallow P3.mxd

Notes:

mg/kg = Milligrams per Kilogram

ft bgs = Feet Below Ground Surface

TSCA = Toxic Substance Control Act

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/06/2014	P.WU	P. PARMENTIER

0 50 100 200 Feet

PCB CONCENTRATIONS IN SEPTEMBER 2014 SAMPLE AND PROPOSED PCB SOIL EXCAVATION (NORTHERN AREA)

SGI environmental
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N

FIGURE 1B

P2-9R2
As 15 @ 1 ft
Pb 230 @1 ft

B0-5R
2 ft

SEASIDE AVENUE

SEASIDE AVENUE

LEGEND

- TPH ≥ Cleanup Goals for Site
- Metal Concentrations ≥ Cleanup Goals for Site
- Metal 2014 Resampling Concentrations ≥ Cleanup Goals for Site
- Metal Concentrations Were Non Detect or Below the Cleanup Goals
- Proposed TSCA PCB Excavations (0-2 ft bgs)
- Proposed Non TSCA Excavations (0-2 ft bgs)
- Proposed TPH Excavations (0-2 ft bgs)
- 2014 Phase I Area
- 2013 RAW Area

Notes:

TPH = Total Petroleum Hydrocarbons

mg/kg = Milligrams per Kilogram

ft bgs = Feet Below Ground Surface

TSCA = Toxic Substance Control Act

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

ARSENIC AND LEAD CONCENTRATIONS IN SEPTEMBER 2014 SHALLOW SAMPLE AND PROPOSED METAL AND TPH SHALLOW EXCAVATION (SOUTHERN AREA)

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/6/2014	P.WU	P. PARMENTIER

0 50 100 200 Feet

SGI environmental
THE SOURCE GROUP, INC.
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 579-1055

N

FIGURE 2A

Document Path: C:\Users\sgi.TSGLB\Documents\GIS Mapping\POLA5\04-LAHD-009 SWMGIS Maps\DTSC Maps\Fig-2A Grid Map Metals&TPH shallow P1-2.mxd

LEGEND

- TPH ≥ Cleanup Goals for Site
- Metal Concentrations ≥ Cleanup Goals for Site
- Metal 2014 Resampling Concentrations ≥ Cleanup Goals for Site
- Metal Concentrations Were Non Detect or Below the Cleanup Goals
- Proposed TSCA PCB Excavations (0-2 ft bgs)
- Proposed Non TSCA Excavations (0-2 ft bgs)
- Proposed TPH Excavations (0-2 ft bgs)
- 2014 Phase I Area
- 2013 RAW Area

SEASIDE AVENUE

P2-9R2
As 15 @ 1 ft
Pb 230 @1 ft

SEASIDE AVENUE

Document Path: C:\Users\sgi.TSGLB\Documents\GIS Mapping\POLA5\04-LAHD-009 SWM\GIS Maps\DTSC Maps\Fig-2B Grid Map Metals&TPH shallow P3.mxd

Notes:

TPH = Total Petroleum Hydrocarbons

mg/kg = Milligrams per Kilogram

ft bgs = Feet Below Ground Surface

TSCA = Toxic Substance Control Act

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

ARSENIC AND LEAD CONCENTRATIONS IN SEPTEMBER 2014 SHALLOW SAMPLE AND PROPOSED METAL AND TPH SHALLOW EXCAVATION (NORTHERN AREA)

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/6/2014	P.WU	P. PARMENTIER

0 50 100 200 Feet

SGI environmental
THE SOURCE GROUP, INC.
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N

FIGURE 2B

DP-20R
As 4.3 @ 6 ft
Pb 75 @ 6 ft

MW-11R2
As 1.4 @ 10 ft
Pb 20 @ 10 ft

P2-33R
As 3.7 @ 5.5 ft
Pb 13 @ 5.5 ft

LEGEND

- TPH > Cleanup Level
- Metal > Cleanup Level
- Resample 2014 Metal Concentration Below Cleanup Level
- Planned Deep Soil Excavation for PCB Removal
- Soil Excavation (Metal or TPH above Cleanup Level) 2.5-10 ft bgs
- 2014 Phase I
- 2013 RAW Area

NOTES:

TPH = Total Petroleum Hydrocarbons

ft bgs = Feet Below Ground Surface

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

ARSENIC AND LEAD CONCENTRATIONS IN SEPTEMBER 2014 DEEP SAMPLE AND PROPOSED METAL AND TPH DEEP EXCAVATION (SOUTHERN AREA)

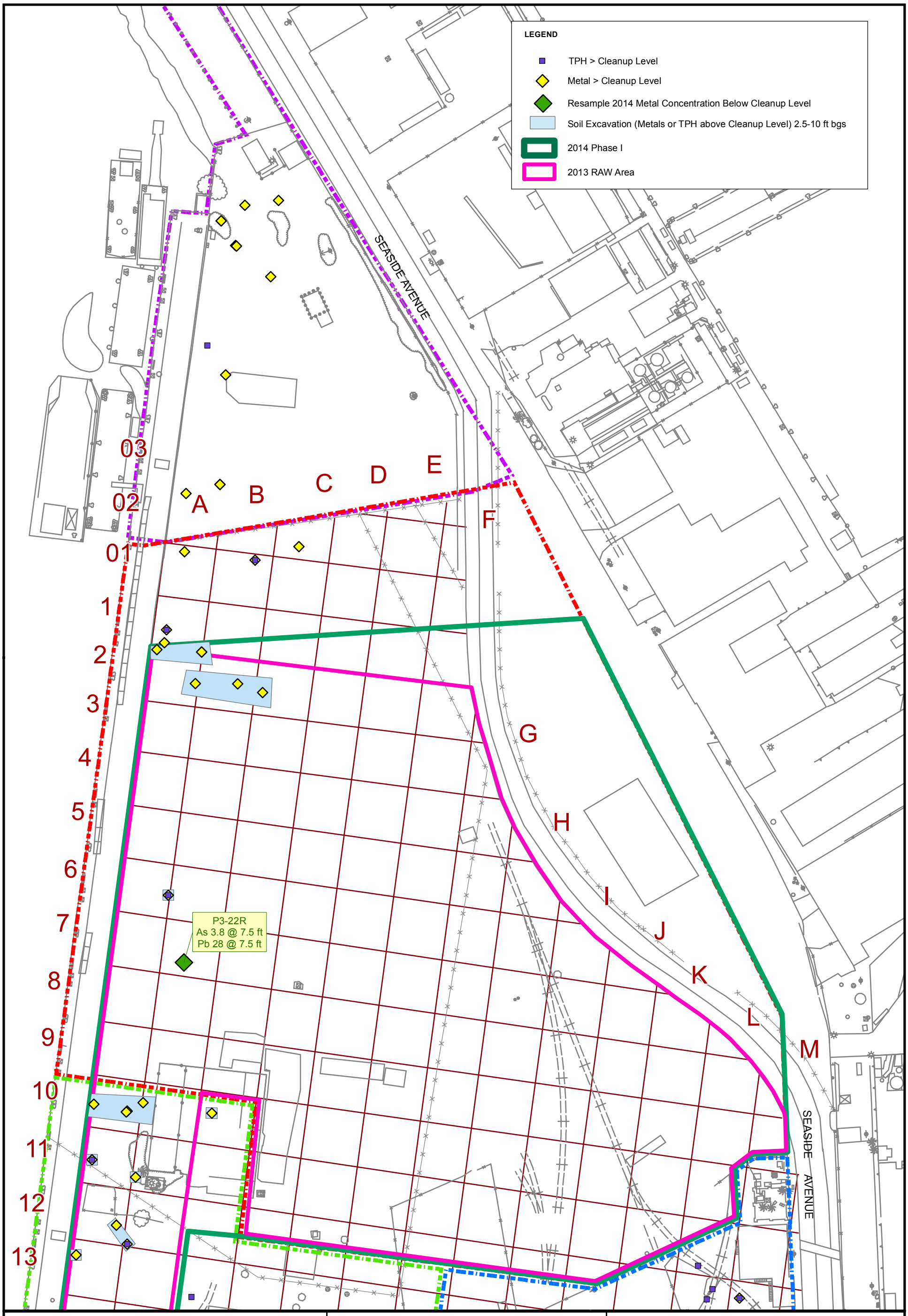
PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/6/2014	P. WU	P. PARMENTIER

0 50 100 200 Feet

SGI environmental
THE SOURCE GROUP, INC.
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 579-1055

N

FIGURE 3A



NOTES:

TPH = Total Petroleum Hydrocarbons

ft bgs = Feet Blow Ground Surface

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

ARSENIC AND LEAD CONCENTRATIONS IN SEPTEMBER 2014 DEEP SAMPLE AND PROPOSED METAL AND TPH DEEP EXCAVATION (NORTHERN AREA)

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
04-LAHD-009	10/6/2014	P. WU	P. PARMENTIER

0 50 100 200 Feet

SGI environmental
THE SOURCE GROUP, INC.
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 579-1055

N

FIGURE 3B

Southwest Marine (04-LAHD-009)

Table 1 - Results of Additional PCB Analyses in Soil

Boring ID	Sample ID	Depth	Date Sampled	Aroclor - 1016 (mg/kg)	Aroclor - 1221 (mg/kg)	Aroclor - 1232 (mg/kg)	Aroclor - 1242 (mg/kg)	Aroclor - 1248 (mg/kg)	Aroclor - 1254 (mg/kg)	Aroclor - 1260 (mg/kg)	Aroclor - 1262 (mg/kg)	Total PCBs (mg/kg)
P3-A-9	P3-A-9-Surface	Surface	9/19/14	<0.020	<0.020	<0.020	<0.020	**0.095**	<0.020	**0.054**	--	0.149
P3-A-9	P3-A-9-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	**0.21**	<0.040	**0.15**	--	0.36
P3-B-9	P3-B-9-Surface	Surface	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.094**	--	0.094
P3-B-9	P3-B-9-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.094**	--	0.094
P3-E-5	P3-E-5-Surface	Surface	9/19/14	<0.20	<0.20	<0.20	<0.20	**6.6**	<0.20	**4.5**	--	**11.1**
P3-E-5	P3-E-5-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	**0.24**	<0.040	**0.10**	--	0.34
P3-F-5	P3-F-5-Surface	Surface	9/19/14	<0.040	<0.040	<0.040	<0.040	**0.48**	<0.040	**0.39**	--	**0.87**
P3-F-5	P3-F-5-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	**0.061**	<0.040	**0.41**	--	0.471
P2-A-25	P2-A-25-Surface	Surface	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.079**	--	0.079
P2-A-25	P2-A-25-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.091**	--	0.091
P2-B-25	P2-B-25-Surface	Surface	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	--	<0.040
P2-B-25	P2-B-25-2'	2 ft	9/19/14	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	--	<0.040

Southwest Marine (04-LAHD-009)

Table 2 - Results of Additional As and Pb Analyses in Soil

Boring ID	Sample ID	Depth (ft bgs)	Date Sampled	As (mg/kg)	Pb (mg/kg)	Historical As (mg/kg)	Historical Pb (mg/kg)
DP-20R	DP-20R-6'	6	9/18/14	4.3	75	3.29	83.2
MW-11R2	MW-11R2-10'	10	9/18/14	1.4	20	3.2	86
P2-33R	P2-33R-5.5'	5.5	9/18/14	3.7	13	<20	<10
P2-6R2	P2-6R2-2'	2.0	9/18/14	3.3	32	<20	70
P2-9R2	P2-9R2-1'	1	9/18/14	**15**	**230**	<20	35
P2-9R2	P2-9R2-6'	6	9/18/14	2.7	<3.0	<20	<10
P3-18R	P3-18R-2'	2.0	9/18/14	3.2	12	<20	<10
P3-22R	P3-22R-7.5'	7.5	9/18/14	3.8	28	<20	96

AMERICAN ANALYTICS

9765 Eton Avenue
Chatsworth
California 91311
Tel: (818) 998-5547
Fax: (818) 998-7258

October 02, 2014

Neil Irish

The Source Group, Inc. (SH)

1962 Freeman Ave.

Signal Hill, CA 90755

Re : POLA - Southwest Marine / 04-LAHD-009

A5331114 / 4I19004

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/19/14 15:13 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

Viorel Vasile

Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
8082A PCBs					
P3-A-9-SURFACE	4I19004-09	Soil	5	09/19/14 08:15	09/19/14 15:13
P3-A-9-2'	4I19004-10	Soil	5	09/19/14 08:30	09/19/14 15:13
P3-B-9-SURFACE	4I19004-12	Soil	5	09/19/14 09:20	09/19/14 15:13
P3-B-9-2'	4I19004-13	Soil	5	09/19/14 09:35	09/19/14 15:13
P3-E-5-SURFACE	4I19004-15	Soil	5	09/19/14 10:10	09/19/14 15:13
P3-E-5-2'	4I19004-16	Soil	5	09/19/14 10:23	09/19/14 15:13
P3-F-5-SURFACE	4I19004-18	Soil	5	09/19/14 11:00	09/19/14 15:13
P3-F-5-2'	4I19004-19	Soil	5	09/19/14 11:20	09/19/14 15:13
P2-A-25-SURFACE	4I19004-21	Soil	5	09/19/14 12:05	09/19/14 15:13
P2-A-25-2'	4I19004-22	Soil	5	09/19/14 12:19	09/19/14 15:13
P2-B-25-SURFACE	4I19004-24	Soil	5	09/19/14 12:48	09/19/14 15:13
P2-B-25-2'	4I19004-25	Soil	5	09/19/14 13:00	09/19/14 15:13
Arsenic Total EPA 6010B					
MW-11R2-10'	4I19004-01	Soil	5	09/18/14 09:25	09/19/14 15:13
DP-20R-6'	4I19004-02	Soil	5	09/18/14 10:00	09/19/14 15:13
P2-33R2-5.5'	4I19004-03	Soil	5	09/18/14 10:25	09/19/14 15:13
P2-6R2-2'	4I19004-04	Soil	5	09/18/14 12:54	09/19/14 15:13
P2-9R2-1'	4I19004-05	Soil	5	09/18/14 13:20	09/19/14 15:13

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
P2-9R2-6'	4I19004-06	Soil	5	09/18/14 13:48	09/19/14 15:13
P3-22R-7.5'	4I19004-07	Soil	5	09/18/14 14:23	09/19/14 15:13
P3-18R-2'	4I19004-08	Soil	5	09/18/14 14:40	09/19/14 15:13
Lead Total EPA 6010B					
MW-11R2-10'	4I19004-01	Soil	5	09/18/14 09:25	09/19/14 15:13
DP-20R-6'	4I19004-02	Soil	5	09/18/14 10:00	09/19/14 15:13
P2-33R2-5.5'	4I19004-03	Soil	5	09/18/14 10:25	09/19/14 15:13
P2-6R2-2'	4I19004-04	Soil	5	09/18/14 12:54	09/19/14 15:13
P2-9R2-1'	4I19004-05	Soil	5	09/18/14 13:20	09/19/14 15:13
P2-9R2-6'	4I19004-06	Soil	5	09/18/14 13:48	09/19/14 15:13
P3-22R-7.5'	4I19004-07	Soil	5	09/18/14 14:23	09/19/14 15:13
P3-18R-2'	4I19004-08	Soil	5	09/18/14 14:40	09/19/14 15:13

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine
Method: Polychlorinated Biphenyls by GC

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14
Units: mg/kg

Date Sampled:	09/19/14	09/19/14	09/19/14	09/19/14	
Date Prepared:	09/22/14	09/22/14	09/22/14	09/22/14	
Date Analyzed:	09/30/14	09/30/14	09/30/14	09/30/14	
AA ID No:	4I19004-09	4I19004-10	4I19004-12	4I19004-13	
Client ID No:	P3-A-9-SURFACE	P3-A-9-2'	P3-B-9-SURFACE	P3-B-9-2'	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	2	2	2	MRL
8082A PCBs (EPA 8082A)					
Aroclor-1016	<0.020	<0.040	<0.040	<0.040	0.020
Aroclor-1221	<0.020	<0.040	<0.040	<0.040	0.020
Aroclor-1232	<0.020	<0.040	<0.040	<0.040	0.020
Aroclor-1242	<0.020	<0.040	<0.040	<0.040	0.020
Aroclor-1248	**0.095**	**0.21**	<0.040	<0.040	0.020
Aroclor-1254	<0.020	<0.040	<0.040	<0.040	0.020
Aroclor-1260	**0.054**	**0.15**	**0.094**	**0.094**	0.020
Surrogates					**%REC Limits**
Decachlorobiphenyl	82%	94%	121%	132%	50-150
Tetrachloro-meta-xylene	60%	70%	51%	41% [3]	50-150

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine
Method: Polychlorinated Biphenyls by GC

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14
Units: mg/kg

Date Sampled:	09/19/14	09/19/14	09/19/14	09/19/14	
Date Prepared:	09/22/14	09/22/14	09/22/14	09/22/14	
Date Analyzed:	09/30/14	09/30/14	09/30/14	09/30/14	
AA ID No:	4I19004-15	4I19004-16	4I19004-18	4I19004-19	
Client ID No:	P3-E-5-SURFACE	P3-E-5-2'	P3-F-5-SURFACE	P3-F-5-2'	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	10	2	2	2	MRL
8082A PCBs (EPA 8082A)					
Aroclor-1016	<0.20	<0.040	<0.040	<0.040	0.020
Aroclor-1221	<0.20	<0.040	<0.040	<0.040	0.020
Aroclor-1232	<0.20	<0.040	<0.040	<0.040	0.020
Aroclor-1242	<0.20	<0.040	<0.040	<0.040	0.020
Aroclor-1248	**6.6**	**0.24**	**0.48**	**0.061**	0.020
Aroclor-1254	<0.20	<0.040	<0.040	<0.040	0.020
Aroclor-1260	**4.5**	**0.10**	**0.39**	**0.41**	0.020
Surrogates					**%REC Limits**
Decachlorobiphenyl	0.0 [2]	177% [3]	0.0 [2]	0.0 [2]	50-150
Tetrachloro-meta-xylene	63%	73%	62%	59%	50-150

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine
Method: Polychlorinated Biphenyls by GC

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14
Units: mg/kg

Date Sampled:	09/19/14	09/19/14	09/19/14	09/19/14	
Date Prepared:	09/22/14	09/22/14	09/22/14	09/22/14	
Date Analyzed:	09/30/14	09/30/14	09/30/14	09/30/14	
AA ID No:	4I19004-21	4I19004-22	4I19004-24	4I19004-25	
Client ID No:	P2-A-25-SURFACE	P2-A-25-2'	P2-B-25-SURFACE	P2-B-25-2'	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	2	2	2	2	MRL
8082A PCBs (EPA 8082A)					
Aroclor-1016	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1221	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1232	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1242	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1248	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1254	<0.040	<0.040	<0.040	<0.040	0.020
Aroclor-1260	**0.079**	**0.091**	<0.040	<0.040	0.020
Surrogates					**%REC Limits**
Decachlorobiphenyl	96%	104%	49% [4]	67%	50-150
Tetrachloro-meta-xylene	64%	78%	62%	66%	50-150

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine
Method: Total Metals by ICP Atomic Emission Spectroscopy

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14

AA I.D. No.	Client I.D. No.	Sampled	Prepared	Analyzed	Dilution	Result	Units	MRL
Arsenic Total EPA 6010B (EPA 6010B)								
4I19004-01	MW-11R2-10'	09/18/14	09/23/14	09/30/14	1	**1.4**	mg/kg	0.5
4I19004-02	DP-20R-6'	09/18/14	09/23/14	09/30/14	1	**4.3**	mg/kg	0.5
4I19004-03	P2-33R2-5.5'	09/18/14	09/23/14	09/23/14	1	**3.7**	mg/kg	0.5
4I19004-04	P2-6R2-2'	09/18/14	09/23/14	09/23/14	1	**3.3**	mg/kg	0.5
4I19004-05	P2-9R2-1'	09/18/14	09/23/14	09/23/14	1	**15**	mg/kg	0.5
4I19004-06	P2-9R2-6'	09/18/14	09/23/14	09/23/14	1	**2.7**	mg/kg	0.5
4I19004-07	P3-22R-7.5'	09/18/14	09/23/14	09/23/14	1	**3.8**	mg/kg	0.5
4I19004-08	P3-18R-2'	09/18/14	09/23/14	09/23/14	1	**3.2**	mg/kg	0.5
Lead Total EPA 6010B (EPA 6010B)								
4I19004-01	MW-11R2-10'	09/18/14	09/23/14	09/23/14	1	**20**	mg/kg	3
4I19004-02	DP-20R-6'	09/18/14	09/23/14	09/23/14	1	**75**	mg/kg	3
4I19004-03	P2-33R2-5.5'	09/18/14	09/23/14	09/30/14	1	**13**	mg/kg	3
4I19004-04	P2-6R2-2'	09/18/14	09/23/14	09/30/14	1	**32**	mg/kg	3
4I19004-05	P2-9R2-1'	09/18/14	09/23/14	09/30/14	1	**230**	mg/kg	3
4I19004-06	P2-9R2-6'	09/18/14	09/23/14	09/30/14	1	<3.0	mg/kg	3
4I19004-07	P3-22R-7.5'	09/18/14	09/23/14	09/23/14	1	**28**	mg/kg	3
4I19004-08	P3-18R-2'	09/18/14	09/23/14	09/30/14	1	**12**	mg/kg	3

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Polychlorinated Biphenyls by GC - Quality Control										
Batch B4I2214 - EPA 3540C										
Blank (B4I2214-BLK1)				Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	<0.010	0.010	mg/kg							
Aroclor-1221	<0.010	0.010	mg/kg							
Aroclor-1232	<0.010	0.010	mg/kg							
Aroclor-1242	<0.010	0.010	mg/kg							
Aroclor-1248	<0.010	0.010	mg/kg							
Aroclor-1254	<0.010	0.010	mg/kg							
Aroclor-1260	<0.010	0.010	mg/kg							
Surrogate: Decachlorobiphenyl	*0.00200*		*mg/kg*	*0.0025*		*80.0*	*50-150*			
Surrogate: Tetrachloro-meta-xylene	*0.00263*		*mg/kg*	*0.0025*		*105*	*50-150*			
LCS (B4I2214-BS1)				Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	**0.0316**	0.010	mg/kg	0.025		127	60-140		40	
Aroclor-1260	**0.0294**	0.010	mg/kg	0.025		118	60-140		40	
Surrogate: Decachlorobiphenyl	*0.00262*		*mg/kg*	*0.0025*		*105*	*50-150*			
Surrogate: Tetrachloro-meta-xylene	*0.00101*		*mg/kg*	*0.0025*		*40.4*	*50-150*			*S-GC*
LCS Dup (B4I2214-BSD1)				Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	**0.0296**	0.010	mg/kg	0.025		118	60-140	6.69	40	
Aroclor-1260	**0.0275**	0.010	mg/kg	0.025		110	60-140	6.68	40	
Surrogate: Decachlorobiphenyl	*0.00261*		*mg/kg*	*0.0025*		*104*	*50-150*			
Surrogate: Tetrachloro-meta-xylene	*0.00142*		*mg/kg*	*0.0025*		*56.8*	*50-150*			
Duplicate (B4I2214-DUP1)			**Source: 4I19004-16**	Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	**<0.040**	0.040	mg/kg		<0.040				40	
Aroclor-1221	**<0.040**	0.040	mg/kg		<0.040				40	
Aroclor-1232	**<0.040**	0.040	mg/kg		<0.040				40	
Aroclor-1242	**<0.040**	0.040	mg/kg		<0.040				40	
Aroclor-1248	**0.219**	0.040	mg/kg		0.240			8.98	40	
Aroclor-1254	**<0.040**	0.040	mg/kg		<0.040				40	
Aroclor-1260	**0.0694**	0.040	mg/kg		0.100			36.1	40	
Surrogate: Decachlorobiphenyl	*0.00774*		*mg/kg*	*0.0050*		*155*	*50-150*			*S-GC*
Surrogate: Tetrachloro-meta-xylene	*0.00368*		*mg/kg*	*0.0050*		*73.6*	*50-150*			

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: The Source Group, Inc. (SH)
Project No: 04-LAHD-009
Project Name: POLA - Southwest Marine

AA Project No: A5331114
Date Received: 09/19/14
Date Reported: 10/02/14

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Polychlorinated Biphenyls by GC - Quality Control										
Batch B4I2214 - EPA 3540C										
Matrix Spike (B4I2214-MS1)		**Source: 4I19004-12**		Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	**0.0774**	0.040	mg/kg	0.050	<0.040	155	50-150		40	QM-07
Aroclor-1260	**0.119**	0.040	mg/kg	0.050	0.0942	49.6	50-150		40	QM-07
Surrogate: Decachlorobiphenyl	*0.00696*		*mg/kg*	*0.0050*		*139*	*50-150*			
Surrogate: Tetrachloro-meta-xylene	*0.00318*		*mg/kg*	*0.0050*		*63.6*	*50-150*			
Matrix Spike Dup (B4I2214-MSD1)		**Source: 4I19004-12**		Prepared: 09/22/14 Analyzed: 09/30/14						
Aroclor-1016	**0.0744**	0.040	mg/kg	0.050	<0.040	149	50-150	3.95	40	
Aroclor-1260	**0.118**	0.040	mg/kg	0.050	0.0942	47.2	50-150	1.01	40	QM-07
Surrogate: Decachlorobiphenyl	*0.00552*		*mg/kg*	*0.0050*		*110*	*50-150*			
Surrogate: Tetrachloro-meta-xylene	*0.00273*		*mg/kg*	*0.0050*		*54.6*	*50-150*			
Total Metals by ICP Atomic Emission Spectroscopy - Quality Control										
Batch B4I2302 - EPA 3050B										
Blank (B4I2302-BLK1)				Prepared & Analyzed: 09/23/14						
Lead	<3.0	3.0	mg/kg							
Arsenic	<0.50	0.50	mg/kg							
LCS (B4I2302-BS1)				Prepared & Analyzed: 09/23/14						
Lead	**55.0**	3.0	mg/kg	50		110	80-120			
Arsenic	**55.5**	0.50	mg/kg	50		111	80-120			
LCS Dup (B4I2302-BSD1)				Prepared & Analyzed: 09/23/14						
Lead	**53.8**	3.0	mg/kg	50		108	80-120	2.11	20	
Arsenic	**53.8**	0.50	mg/kg	50		108	80-120	3.02	20	
Matrix Spike (B4I2302-MS1)		**Source: 4I19004-07**		Prepared & Analyzed: 09/23/14						
Arsenic	**62.2**	0.50	mg/kg	50	3.79	117	75-125			
Lead	**88.5**	3.0	mg/kg	50	27.7	122	75-125			
Matrix Spike Dup (B4I2302-MSD1)		**Source: 4I19004-07**		Prepared & Analyzed: 09/23/14						
Lead	**81.0**	3.0	mg/kg	50	27.7	107	75-125	8.85	40	
Arsenic	**62.2**	0.50	mg/kg	50	3.79	117	75-125	0.00	40	

Viorel Vasile
Operations Manager

LABORATORY ANALYSIS RESULTS

Client:	The Source Group, Inc. (SH)	**AA Project No:**	A5331114
Project No:	04-LAHD-009	**Date Received:**	09/19/14
Project Name:	POLA - Southwest Marine	**Date Reported:**	10/02/14

Special Notes

[1] = **QM-07** : The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

[2] = **S-01** : The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.

[3] = **S-04** : The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

[4] = **S-GC** : Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

Viorel Vasile
Operations Manager

AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311
Tel: 818-998-5547 FAX: 818-998-7258

A.A. COC No.: 120792
70040772

Client: The Source Group Inc	Project Name / No.: Southwest Marine Sampling	Sampler's Name: DERYCK ROBERTS	
Project Manager: Paul Parmentier	Site Address: 985 Seaside Avenue	Sampler's Signature:	
Phone: 562-597-1055	City: Terminal Island	P.O. No.: 04-LAHD-009	
Fax: 562-597-1070	State & Zip: CA	Quote No.:	

TAT Turnaround Codes **

(1) = Same Day Rush
(2) = 24 Hour Rush
(3) = 48 Hour Rush
(4) = 72 Hour Rush
(5) = 5 Day Rush
X = 10 Working Days (Standard TAT)

ANALYSIS REQUESTED (Test Name)

Client I.D.	A.A. I.D.	Date	Time	Sample Matrix	No. of Cont	Arsenic	Lead	PCB EPA (el) 8/24	Special Instructions
						Please enter the TAT Turnaround Codes ** below			
MW-11R2-10'	4I19004-01	9/18/14	0925	SOIL	1	X	X		
DP-20R-6'	-02		1000	SOIL	1	X	X		
P2-33R2-5.5'	-03		1025	SOIL	1	X	X		
P2-6R2-2'	-04		1254	SOIL	1	X	X		
P2-9R2-1'	-05		1320	SOIL	1	X	X		
P2-9R2-6'	-06		1348	SOIL	1	X	X		
P3-22R-7.5'	-07		1423	SOIL	1	X	X		
P3-18R-2'	-08		1440	SOIL	1	X	X		
P3-A-9-SURFACE	-09	9/19/14	0815	SOIL	1			X	
P3-A-9-2'	-10		0830	SOIL	1			X	
P3-A-9-5'	-11		0855	SOIL	1				Hold this sample
P3-B-9-SURFACE	-12		0920	SOIL	1			X	
P3-B-2'	-13		0935	SOIL	1			X	
P3-B-5'	-14		0948	SOIL	1			X	Hold this sample

For Laboratory Use
REVIEWED
Date 9/19/14 Time 1600
TAT N Days Sign:

A.A. Project No.: A5331114 / 4I19004

Relinquished by	Date	Time	Received by
	9/19/14	1326	
Relinquished by	9/19/14	1513	Received by
Relinquished by	Date	Time	Received by

Note: By relinquishing samples to American Analytics, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytics.

AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311
Tel: 818-998-5547 FAX: 818-998-7258

A.A. COC No.: 120793
70040773

Client: The Source Group Inc. | Project Name / No.: Southwest Marine Sampling | Sampler's Name: Derrick Roberts
Project Manager: Paul Parmenter | Site Address: 985 Seaside Avenue | Sampler's Signature:
Phone: 562-597-1055 | City: Terminal Island | P.O. No.: 07-LAHD-009
Fax: 562-597-1070 | State & Zip: CA | Quote No.:

TAT Turnaround Codes **

(1) = Same Day Rush
(2) = 24 Hour Rush
(3) = 48 Hour Rush
(4) = 72 Hour Rush
(5) = 5 Day Rush
X = 10 Working Days (Standard TAT)

ANALYSIS REQUESTED (Test Name)

Please enter the TAT Turnaround Codes ** below

Client I.D.	A.A. I.D.	Date	Time	Sample Matrix	No. of Cont	PCB EPA Cell A24	Special Instructions
P3-E-5-SURFACE	4I19004-15	9/19/14	1010	SOIL	1	X	
P3-E-5-2'	-16		1023			X	
P3-E-5-5'	-17		1047				Hold this sample
P3-F-5-SURFACE	-18		1100			X	
P3-F-5-2'	-19		1120			X	
P3-F-5-5'	-20		1141				Hold This Sample
P2-A-25-SURFACE	-21		1205			X	
P2-A-25-2'	-22		1219			X	
P2-A-25-5'	-23		1237				Hold this sample
P2-B-25-SURFACE	-24		1248			X	
P2-B-25-2'	-25		1300			X	
P2-B-25-5'	-26		1315				Hold this sample

For Laboratory Use
REVIEWED
Date 9/19/14 Time 1600
TAT N Days Sign:

A.A. Project No.: A5331114 / 4I19004

Relinquished by	Date	Time	Received by
	9/19/14	1326	
Relinquished by	9/19/14	1513	Received by
Relinquished by	Date	Time	Received by

Note: By relinquishing samples to American Analytics, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytics.